

What is claimed is:

1. A composite vascular construct comprising a first, blood-contacting component and a second, tissue-contacting component, the first component comprising a load bearing textile construct having an activated, blood compatible surface, the second component comprising an absorbable construct for tissue ingrowth, wherein at least one of the first and second components has at least transient occlusive properties.
2. A composite vascular construct as set forth in claim 1 wherein the first component comprises a polypropylene fabric having a biomolecule immobilized on the blood-contacting surface thereof.
3. A composite vascular construct as set forth in claim 1 wherein the second component comprises a compliant, absorbable film having transient occlusive properties.
4. A composite vascular construct as set forth in claim 2 wherein the blood-contacting surface of the first component comprises sulfonic groups and wherein the biomolecule immobilized thereon is ionically bound to a basic molecule, the basic molecule being ionically bound to the sulfonic groups.
5. A composite vascular construct as set forth in claim 3 wherein the basic molecule comprises polylysine.
6. A composite vascular construct as set forth in claim 4 wherein the biomolecule comprises albumin.
7. A composite vascular construct as set forth in claim 4 wherein the biomolecule comprises fibrinogen.
8. A composite vascular construct as set forth in claim 3 wherein the absorbable film comprises a copolyester comprising repeat units derived from two or more cyclic

monomers selected from the group consisting of caprolactone, p-dioxanone, glycolide, lactide, trimethylene carbonate, 1,5 dioxepan-2-one, morpholinedione, and a substituted morpholinedione.

9. A composite vascular construct as set forth in claim 8 wherein the tissue-contacting surface of the absorbable film comprises at least one bioactive compound.
10. A composite vascular construct as set forth in claim 8 wherein the tissue-contacting surface of the absorbable film comprises at least one cell growth promoter.
11. A composite vascular construct as set forth in claim 1 in the form of a vascular graft.
12. A composite vascular construct as set forth in claim 1 in the form of an endovascular stent graft.
13. A composite vascular construct as set forth in claim 1 in the form of an vascular patch.
14. A composite vascular construct as set forth in claim 2 wherein the polypropylene fabric comprises a woven polypropylene fabric.
15. A composite vascular construct as set forth in claim 2 wherein the polypropylene fabric comprises a knitted polypropylene fabric.
16. A composite vascular construct as set forth in claim 1 wherein the second component comprises a compliant, absorbable, microporous sheath.
17. A composite vascular construct as set forth in claim 16 wherein the microporous sheath comprises a continuous cell foam.
18. A composite vascular construct as set forth in claim 16 wherein the microporous sheath comprises a non-woven nano/microfabric.
19. A composite vascular construct as set forth in claim 16 wherein the tissue-contacting surface of the microporous sheath comprises at least one bioactive agent.

20. A composite vascular construct as set forth in claim 16 wherein the tissue-contacting surface of the microporous sheath comprises at least one growth factor.
21. A composite vascular construct as set forth in claim 1 wherein the first component comprises a non-absorbable textile construct comprising fibers selected from the group consisting of polyester, polyether ester, polyether ether ketone, and polyamide, the textile construct comprising immobilized biomolecules on the blood-contacting surface thereof.